

Claims

What is claimed and desired to be secured by Letters Patent is as follows:

1. A pattern making jig for a quilting machine of the type having a sewing machine moveably mounted on a table, comprising:
 - a) a jig body mountable on the table;
 - b) a stationary gear fixedly connected to said jig body;
 - c) a pinion gear carrier rotatably connected to said jig body, said pinion gear carrier carrying a pinion gear engageable with said stationary gear for orbital movement thereabout; and
 - d) a stylus wheel operably connected to said pinion gear, said stylus wheel having at least one stylus receiver formed therein;
 - e) a stylus securable to said sewing machine and receivable in said stylus receiver in said stylus wheel.
2. The pattern making jig as in Claim 1 and further including a pair of jig rails securable to the table wherein said jig body is selectively moveable along said jig rails.
3. The pattern making jig as in Claim 2 wherein one of said jig rails has teeth formed therein and said jig body includes a slide lock engageable with selected ones of said teeth to lock said jig body in position relative to the table.

4. The pattern making jig as in Claim 1 wherein said pinion gear is one of a set of interchangeable pinion gears of varying diameters.
5. The pattern making jig as in Claim 4 wherein said pinion gear carrier is adjustable to accommodate any one of said set of interchangeable pinion gears.
6. The pattern making jig as in Claim 1 wherein said stylus wheel has a plurality of stylus receivers formed therein, at least one of said stylus receivers being eccentric from the center of rotation of said stylus wheel.
7. The pattern making jig as in Claim 5 wherein said stylus receivers are radially spaced.
8. The pattern making jig as in Claim 5 wherein said stylus receivers are circumferentially spaced.
9. The pattern making jig as in Claim 1 wherein said pinion gear and said stylus wheel are fixedly mounted on a common shaft.
10. The pattern making jig as in Claim 1 wherein said stationary gear is a ring gear having internal teeth.

11. A variable pattern making jig for a quilting machine of the type having a sewing machine moveably mounted on a table, comprising:
- a) a jig body selectively moveable along the table;
 - b) a stationary ring gear fixedly connected to said jig body, said stationary ring gear having internal teeth;
 - c) a moveable ring gear rotatably connected to said jig body concentric with said stationary ring gear, said moveable ring gear having external teeth;
 - d) a drive gear rotatably connected to said jig body and in meshing engagement with said moveable ring gear;
 - e) a hand crank connected to said drive gear;
 - f) a pinion gear carrier assembly comprising:
 - i) a base plate removably connected to said moveable ring gear, said base plate having a slot formed therethrough;
 - ii) a slider moveably connected to said base plate along said slot, said slider having a vertical receiver formed therethrough;
 - iii) a shaft rotatably connected to said slider and extending through said vertical receiver and said slot in said base plate;
 - g) a set of interchangeable pinion gears of varied diameters, any selected one of said set being receivable on a lower end of said shaft and engageable with said stationary ring gear;

- h) a stylus wheel mounted on an upper end of said shaft, said stylus wheel having an upper surface with at least one stylus receiver formed therein; and
 - i) a stylus connectable to the sewing machine so as to extend downwardly therefrom, said stylus having a tip receivable within said stylus receiver.
12. The pattern making jig as in Claim 11 and further including a pair of jig rails securable to the table wherein said jig body is selectively moveable along said jig rails.
13. The pattern making jig as in Claim 12 wherein one of said jig rails has teeth formed therein and said jig body includes a slide lock engageable with selected ones of said teeth to lock said jig body in position relative to the table.
14. The pattern making jig as in Claim 11 wherein said stylus wheel has a plurality of stylus receivers formed therein, at least one of said stylus receivers being eccentric from the center of rotation of said stylus wheel.
15. The pattern making jig as in Claim 14 wherein said stylus receivers are radially spaced.

16. The pattern making jig as in Claim 14 wherein said stylus receivers are circumferentially spaced.
17. A variable pattern making jig for a quilting machine of the type having a sewing machine moveably mounted on a table, comprising:
- a) a pair of jig rails securable to the table;
 - b) a jig body selectively moveable along said jig rails;
 - c) a stationary ring gear fixedly connected to said jig body, said stationary ring gear having internal teeth;
 - d) a bearing assembly concentric with said stationary ring gear and spaced outwardly therefrom, said bearing assembly having inner and outer races; one of said inner and outer races being connected to said jig body;
 - e) a moveable ring gear connected to the other of said inner and outer races, said moveable ring gear having external teeth;
 - f) a drive gear rotatably connected to said jig body and in meshing engagement with said moveable ring gear;
 - g) a hand crank connected to said drive gear;
 - h) a pinion gear carrier assembly comprising:
 - i) a base plate removably connected to said other of said inner and outer races, said base plate having a slot formed therethrough;

- ii) a slider moveably connected to said base plate along said slot, said slider having a vertical receiver formed therethrough;
 - iii) a shaft rotatably connected to said slider and extending through said vertical receiver and said slot in said base plate;
 - i) a set of interchangeable pinion gears of varied diameters, any selected one of said set being receivable on a lower end of said shaft and engageable with said internal teeth of said stationary ring gear;
 - j) a stylus wheel mounted on an upper end of said shaft, said stylus wheel having an upper surface with at least one stylus receiver formed therein; and
 - k) a stylus connectable to the sewing machine so as to extend downwardly therefrom, said stylus having a tip receivable within said stylus receiver.
18. The pattern making jig as in Claim 17 wherein said stylus wheel has a plurality of stylus receivers formed therein, at least one of said stylus receivers being eccentric from the center of rotation of said stylus wheel.
19. The pattern making jig as in Claim 18 wherein said stylus receivers are radially spaced.

20. The pattern making jig as in Claim 18 wherein said stylus receivers are circumferentially spaced.